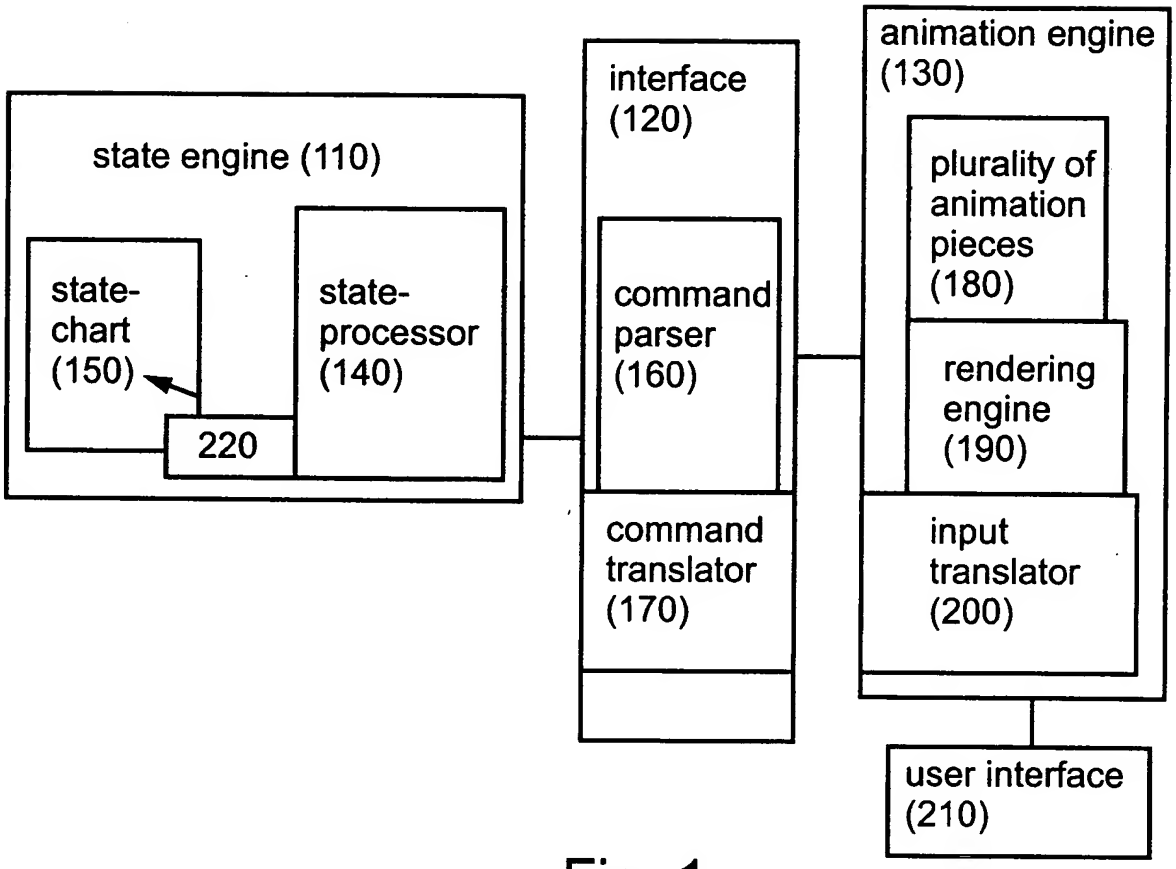

state engine (110)
state-chart (150)
220
state-processor (140)
interface (120)
command parser (160)
command translator (170)
animation engine (130)
plurality of animation pieces (180)
rendering engine (190)
input translator (200)
user interface (210)

Fig. 1

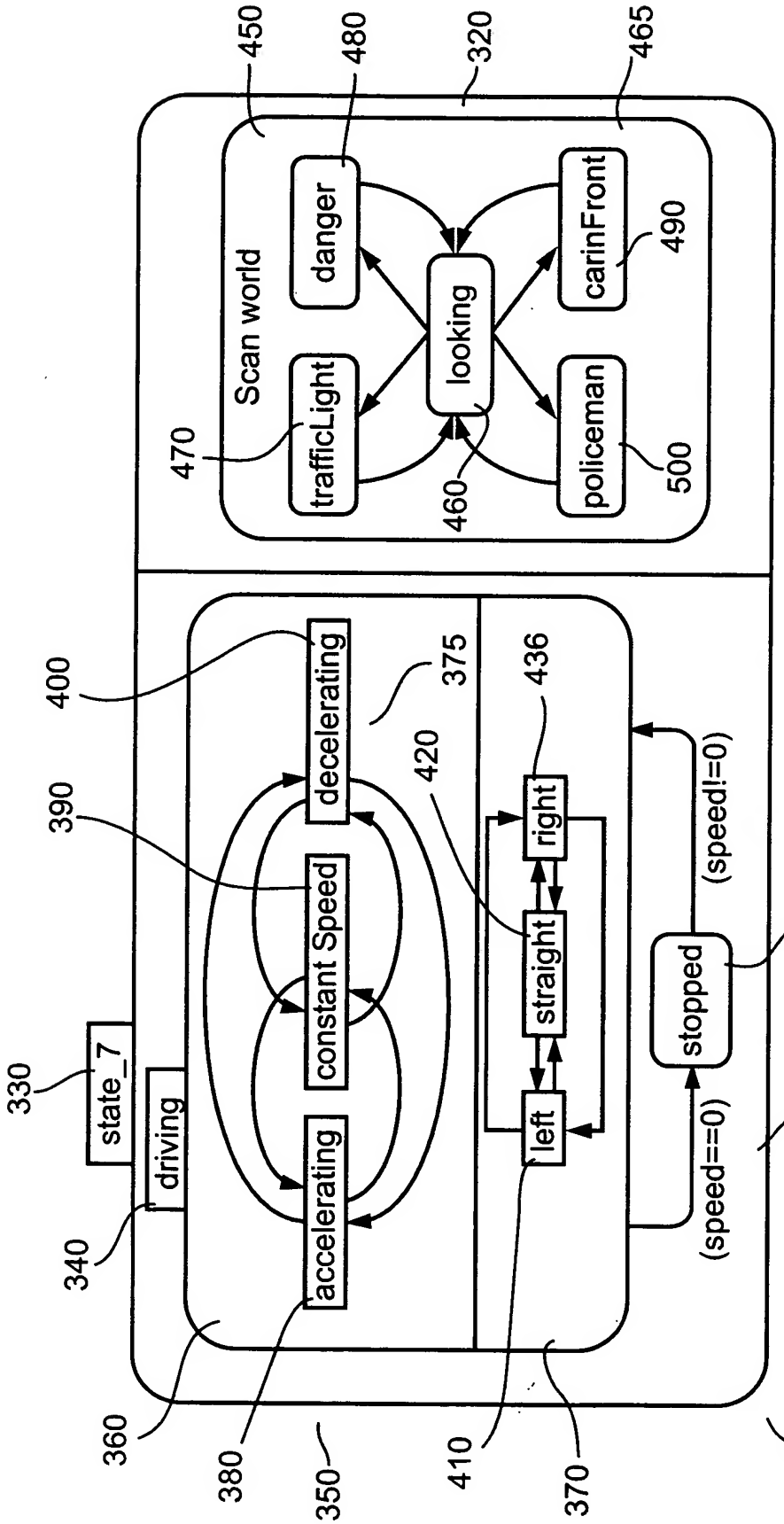

Scan world
danger
looking
carinFront
trafficLight
policeman
state_7
driving
accelerating
constant Speed
decelerating
left
straight
right
stopped
(speed==0)
(speed!=0)
300
310
320
330
340
350
360
370
375
380
390
400
410
420
436
440
450
460
465
470
480
490
500

Fig. 2

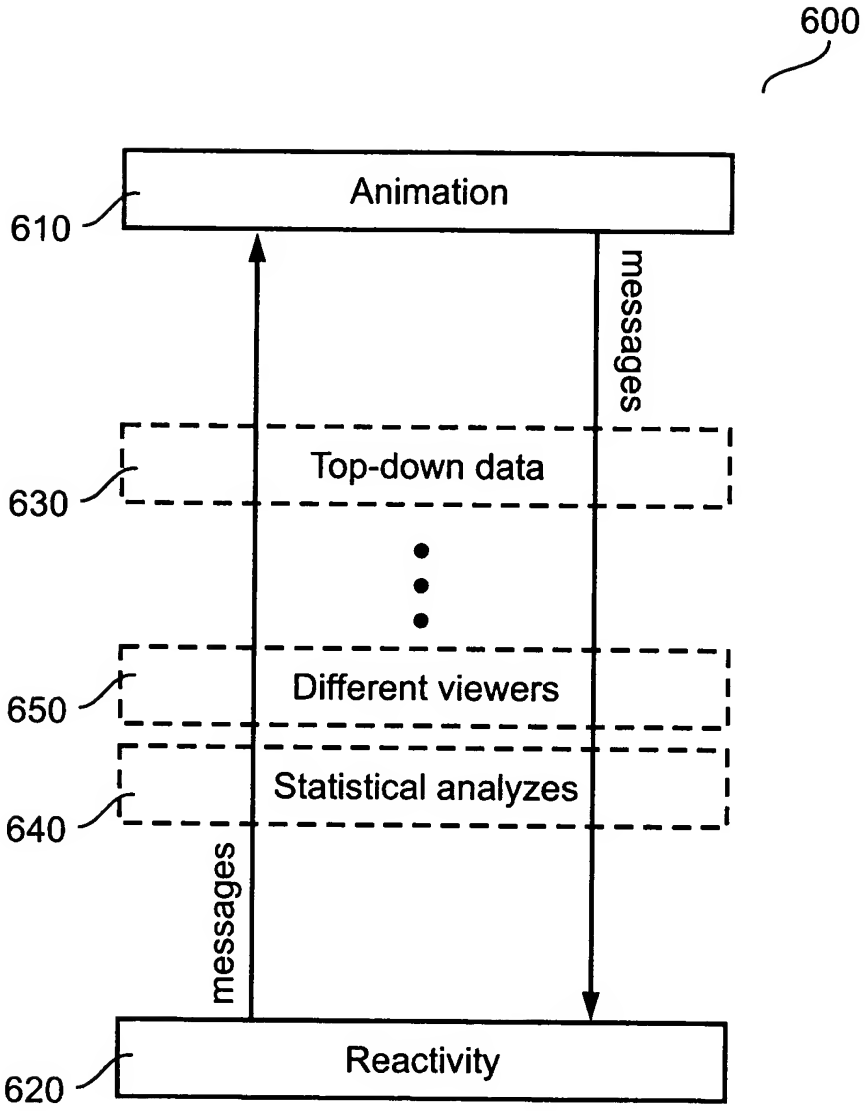

600
Animation
610
messages
Top-down data
630
Different viewers
650
Statistical analyzes
640
messages
Reactivity
620

Fig. 3

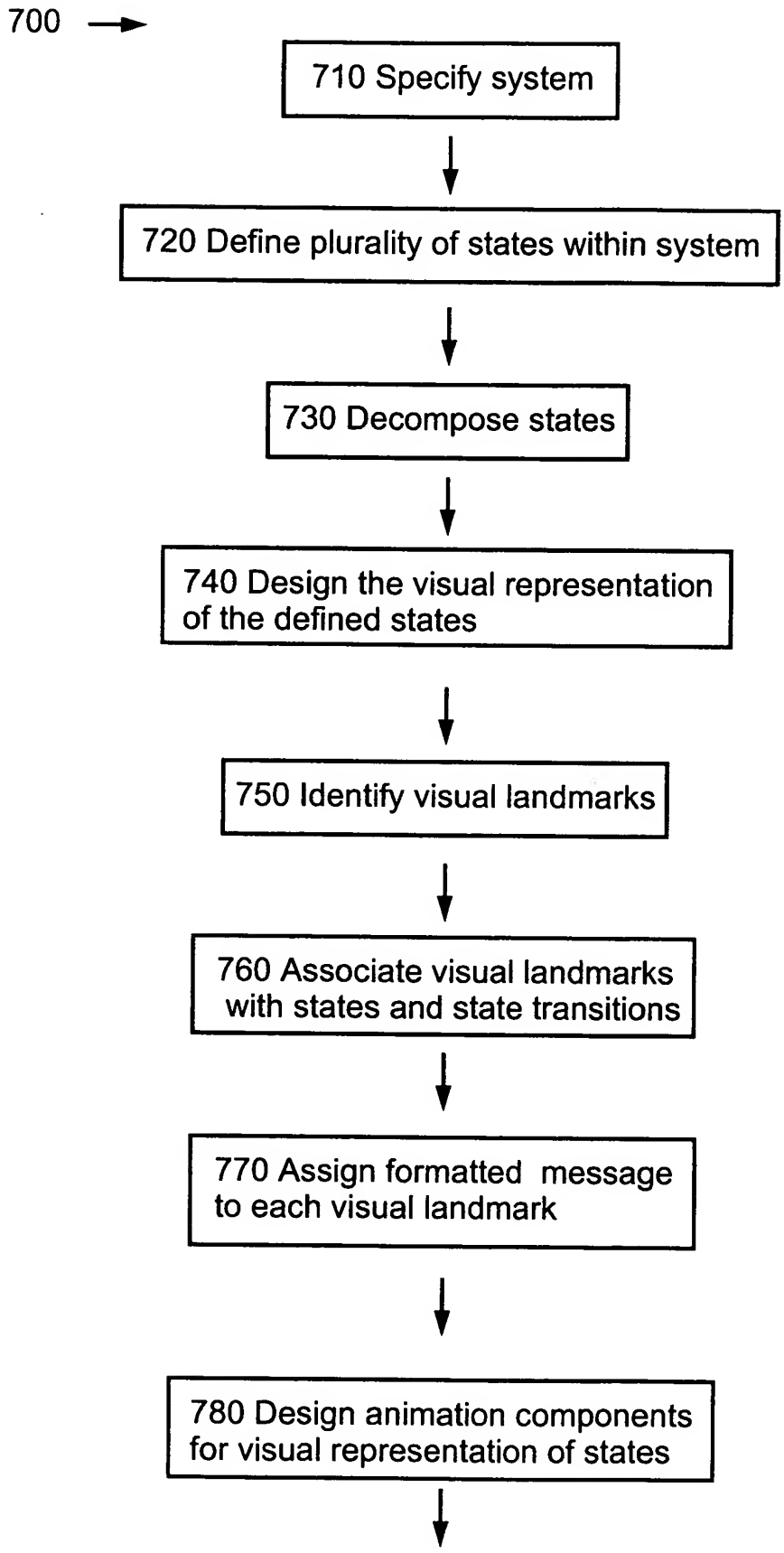

700
710 Specify system
720 Define plurality of states within system
730 Decompose states
740 Design the visual representation of the defined states
750 Identify visual landmarks
760 Associate visual landmarks with states and state transitions
770 Assign formatted message to each visual landmark
780 Design animation components for visual representation of states

Fig. 4

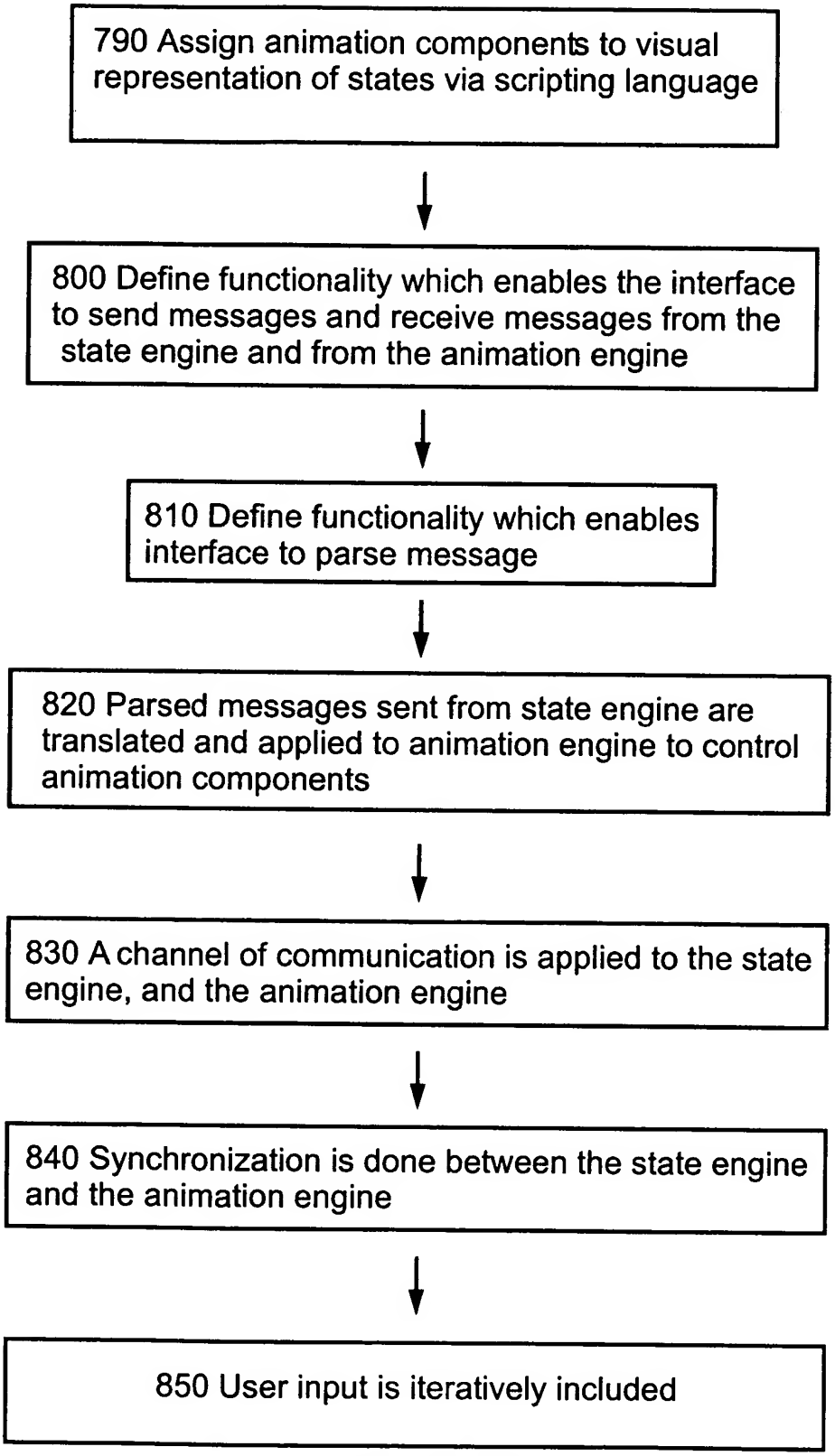

790 Assign animation components to visual representation of states via scripting language
800 Define functionality which enables the interface to send messages and receive messages from the state engine and from the animation engine
810 Define functionality which enables interface to parse message
820 Parsed messages sent from state engine are translated and applied to animation engine to control animation components
830 A channel of communication is applied to the state engine, and the animation engine
840 Synchronization is done between the state engine and the animation engine
850 User input is iteratively included

Fig. 4 (Cont.)

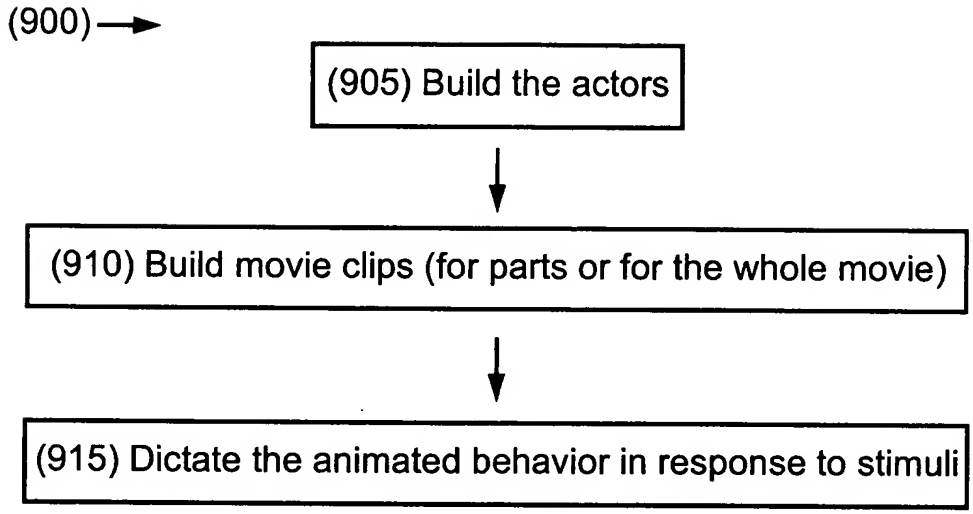

(900)
(905) Build the actors
(910) Build movie clips (for parts or for the whole movie)
(915) Dictate the animated behavior in response to stimuli

Fig. 5

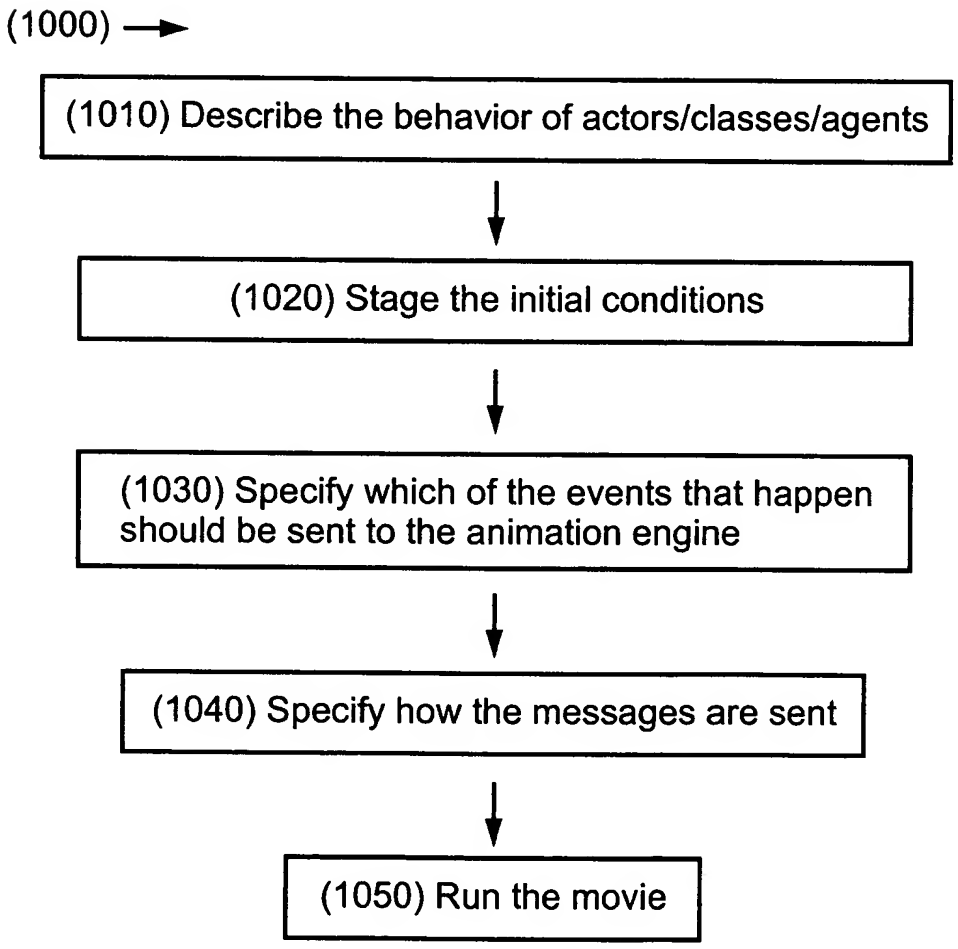

(1000)
(1010) Describe the behavior of actors/classes/agents
(1020) Stage the initial conditions
(1030) Specify which of the events that happen should be sent to the animation engine
(1040) Specify how the messages are sent
(1050) Run the movie

Fig. 6

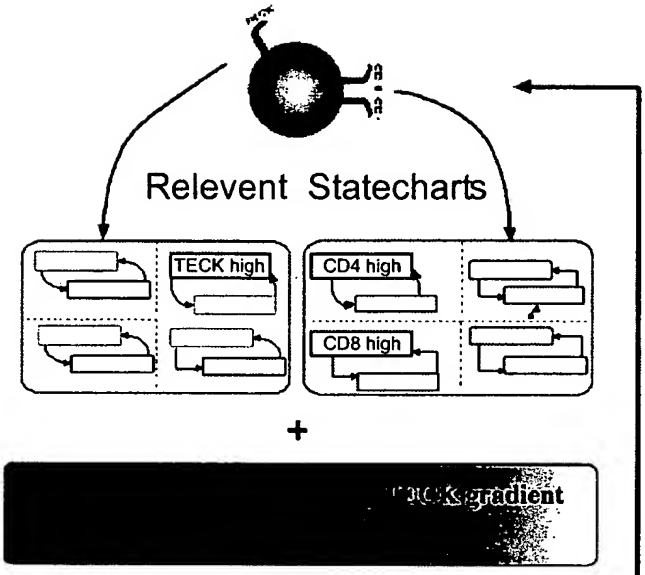


Fig. 7b

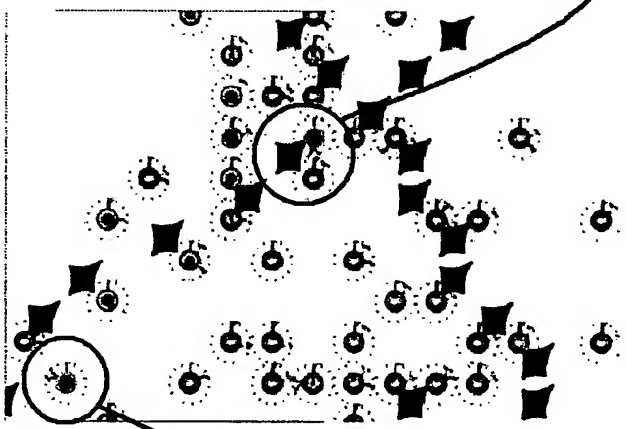


Fig. 7a

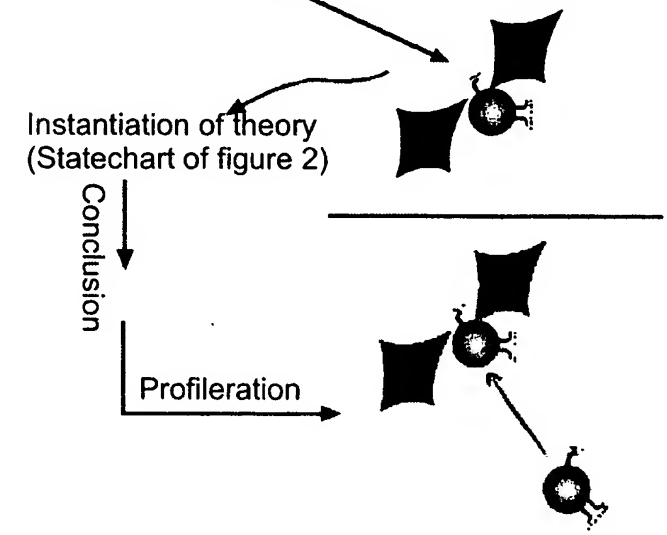
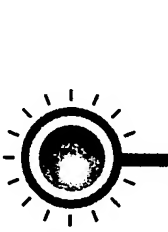


Fig. 7c



- Kill T cell
- Link to Parent
- Developmental stage
- Changes Receptors
- Show TCR sequence

Fig. 8a

- Chemokine Receptors
- Co Receptors
- Cytokine Receptors
- Adhesion Receptors

Fig. 8b

	Yes	No
MDC	☐	☐
SDF 1a	☐	☐
TECK	☐	☐
MIP 3b	☐	☐
SLC	☐	☐

Fig. 8c

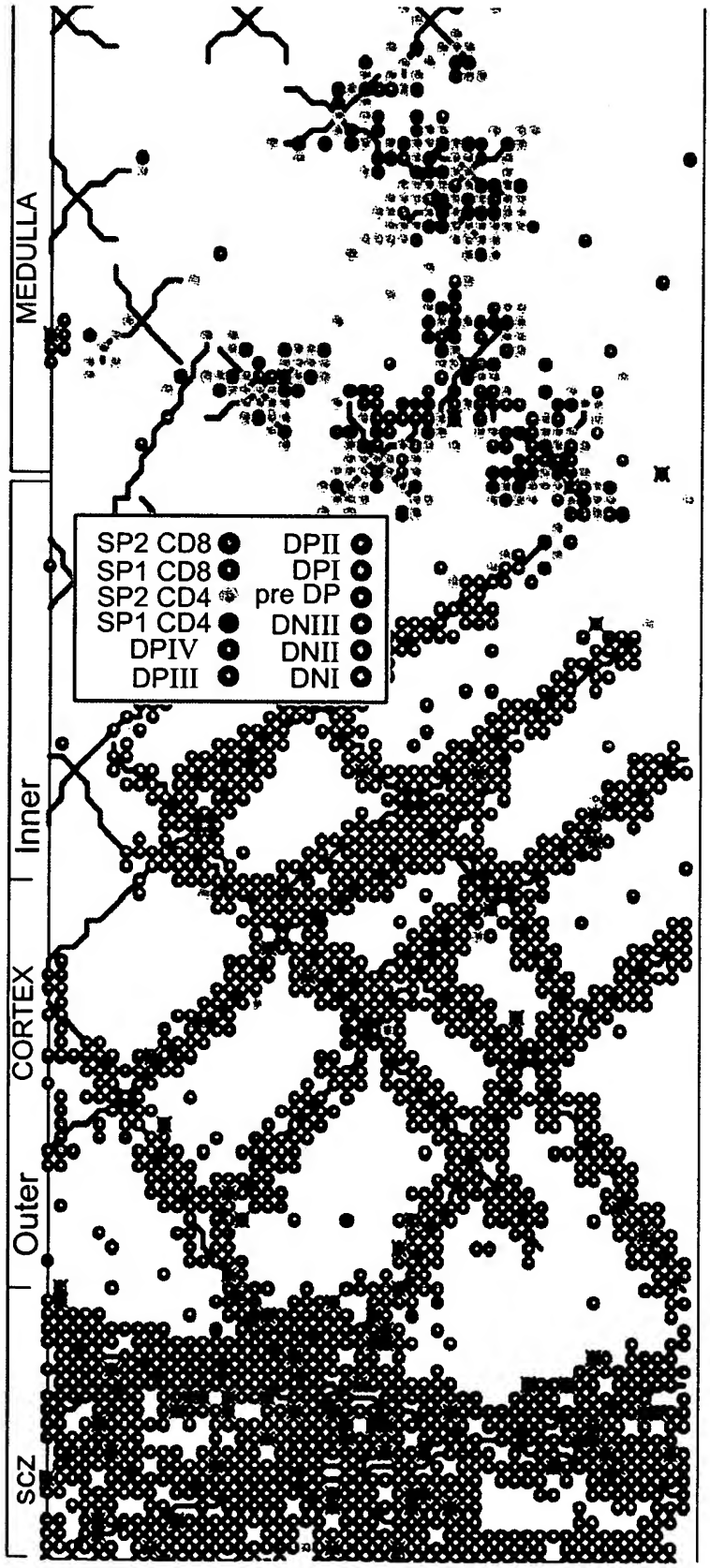


Fig. 9

BEST AVAILABLE COPY

Fig. 10a

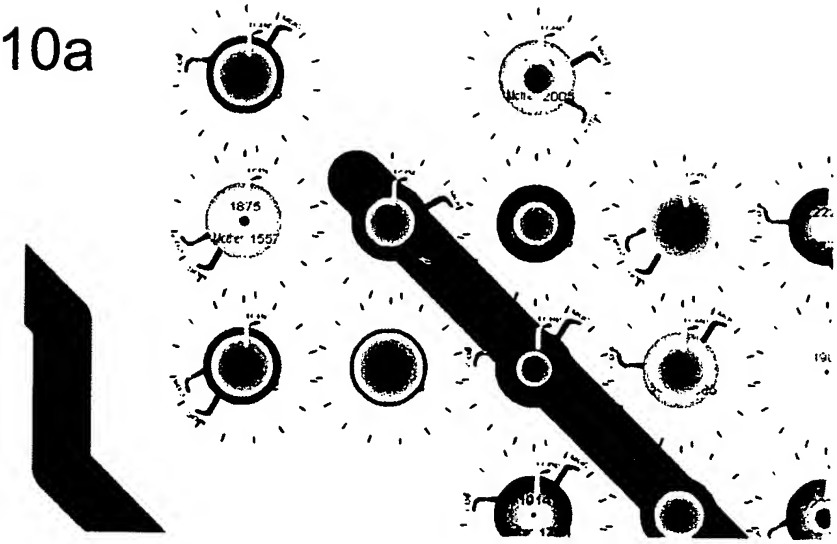
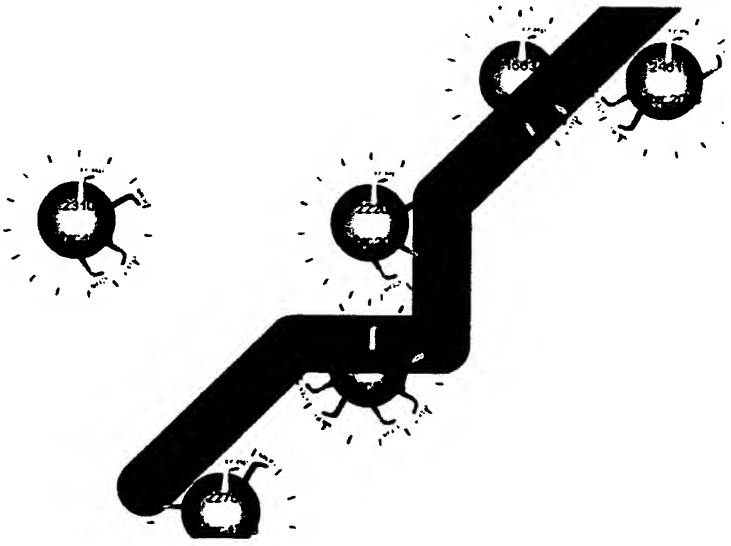


Fig. 10b



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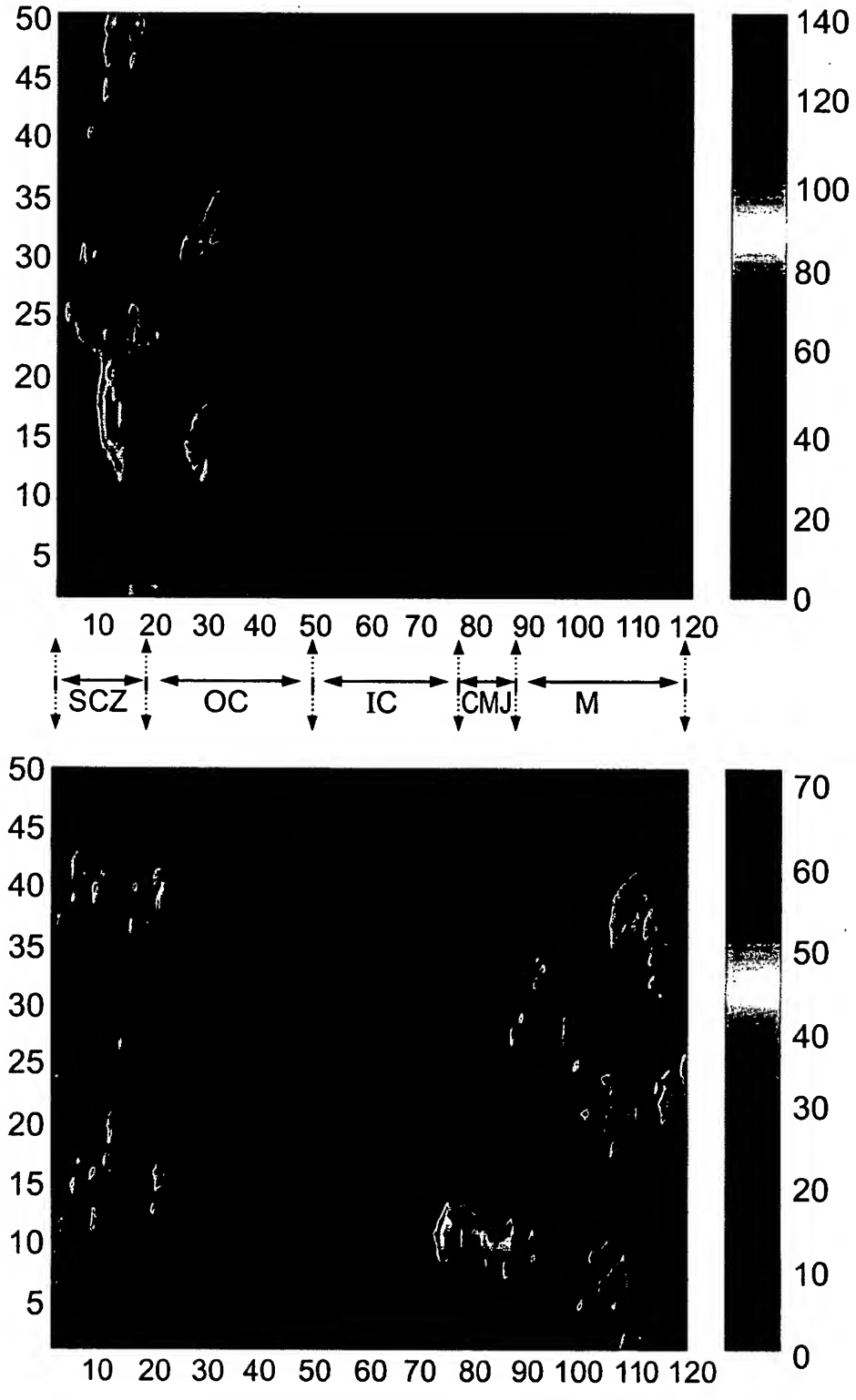

Fig. 11

BEST AVAILABLE COPY

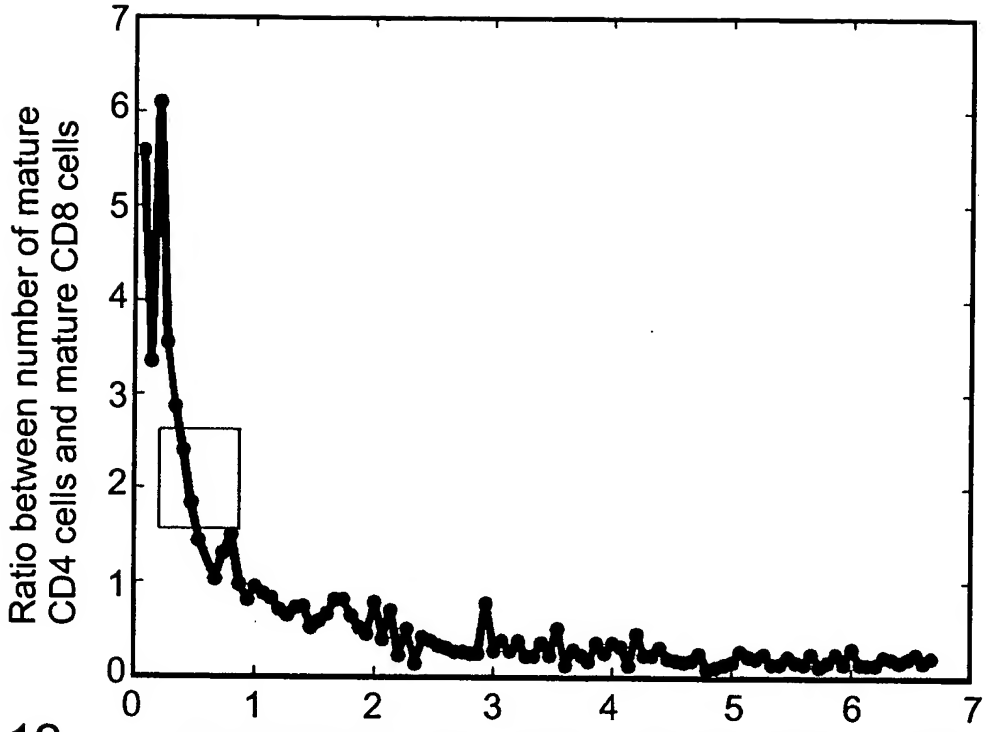

Fig. 12

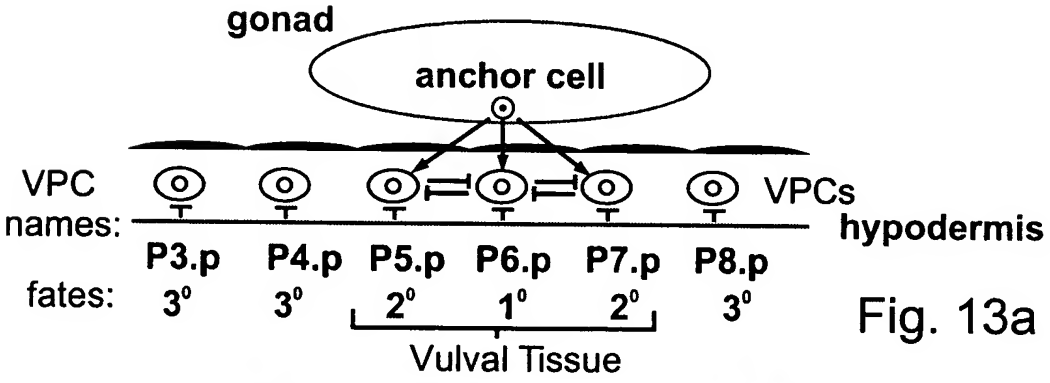

Fig. 13a

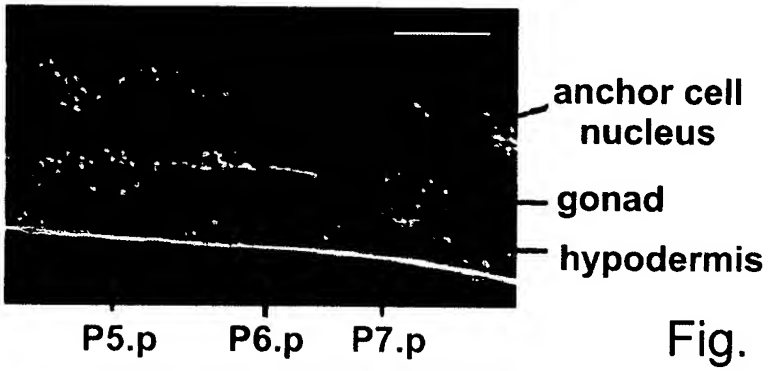

Fig. 13b

BEST AVAILABLE COPY